

CentralTM Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

1N5059 THRU 1N5062

GLASS PASSIVATED RECTIFIER
1.0 AMPS, 200-800 VOLTS

GPR-1A CASE

DESCRIPTION

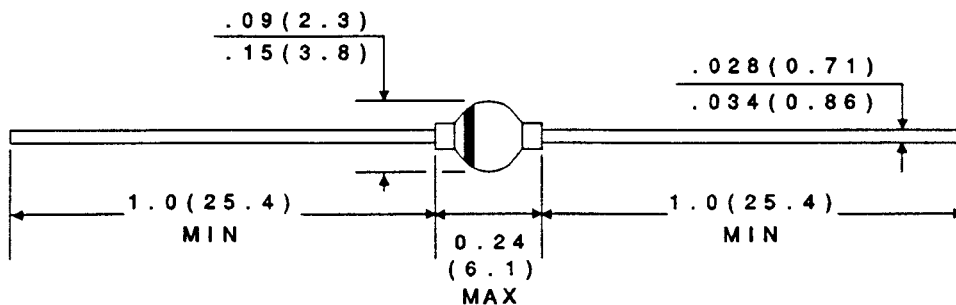
The CENTRAL SEMICONDUCTOR 1N5059 series types are silicon rectifiers manufactured in a hermetically sealed, glass passivated package designed for general purpose applications where high reliability is desired. Higher voltage devices are available in the CPR1-010 series.

MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$)

	SYMBOL	1N5059	1N5060	1N5061	1N5062	UNITS
Peak Reverse Voltage	V_{RRM}	200	400	600	800	V
DC Blocking Voltage	V_R	200	400	600	800	V
RMS Voltage	V_{RMS}	140	280	420	560	V
Average Forward Current ($T_A = 75^\circ\text{C}$)	I_O		1.0			A
Peak Forward Surge Current (8.3ms single half sine-wave on rated load)	I_{FSM}		50			A
Operating and Storage Junction Temperature	T_J, T_{stg}		-65 to +175			$^\circ\text{C}$
Thermal Resistance	θ_{JA}		40			$^\circ\text{C}/\text{W}$

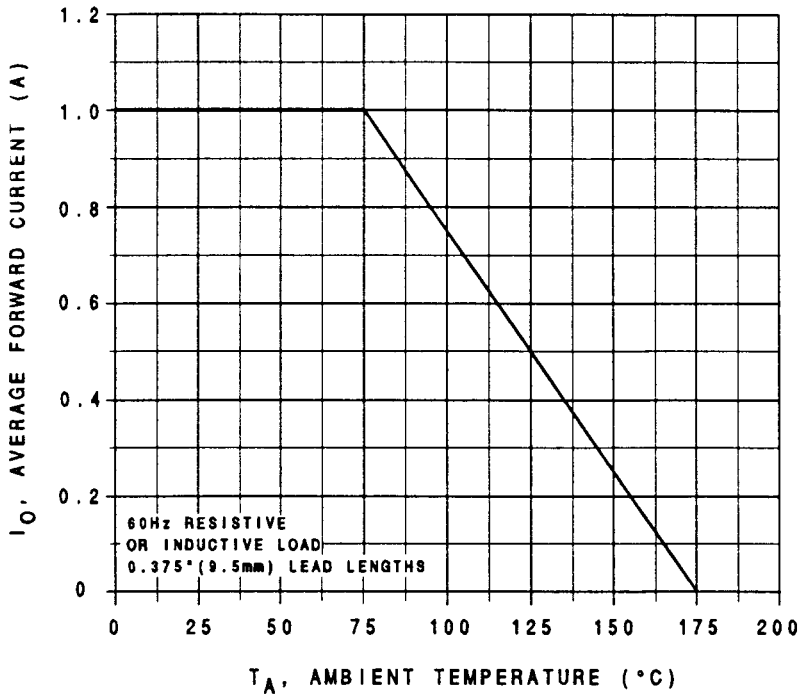
ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I_R	$V_R = \text{Rated } V_{RRM}$		5.0	μA
I_R	$V_R = \text{Rated } V_{RRM}, T_A = 175^\circ\text{C}$ (1N5059, 1N5060)		300	μA
I_R	$V_R = \text{Rated } V_{RRM}, T_A = 175^\circ\text{C}$ (1N5061, 1N5062)		200	μA
V_F	$I_F = 1.0\text{A}$		1.2	V
C_J	$V_R = 4.0\text{V}, f = 1\text{ MHz}$		15	pF
t_{rr}	$I_R = 1.0\text{A}, I_F = 0.5\text{A}, R_L = 100\Omega, \text{Rec. to } 0.25\text{A}$		4.0	ns

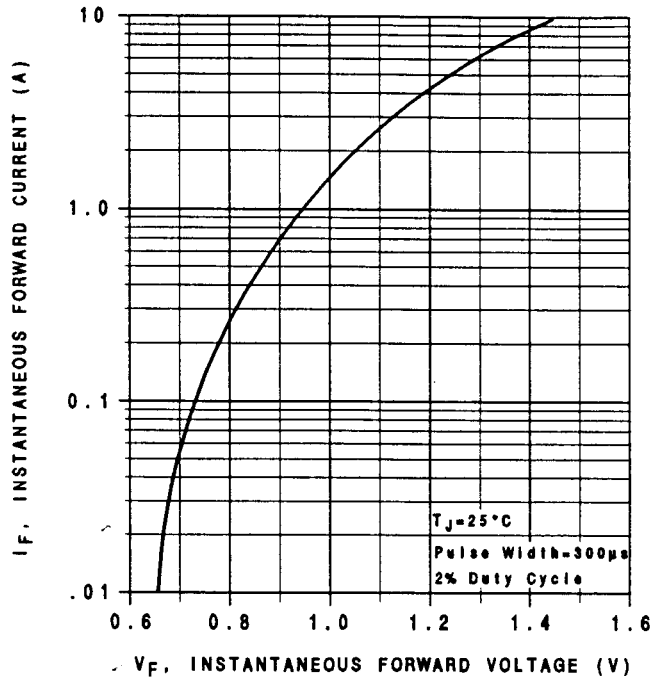


1N5059 THRU 1N5062 RATING AND CHARACTERISTIC CURVES

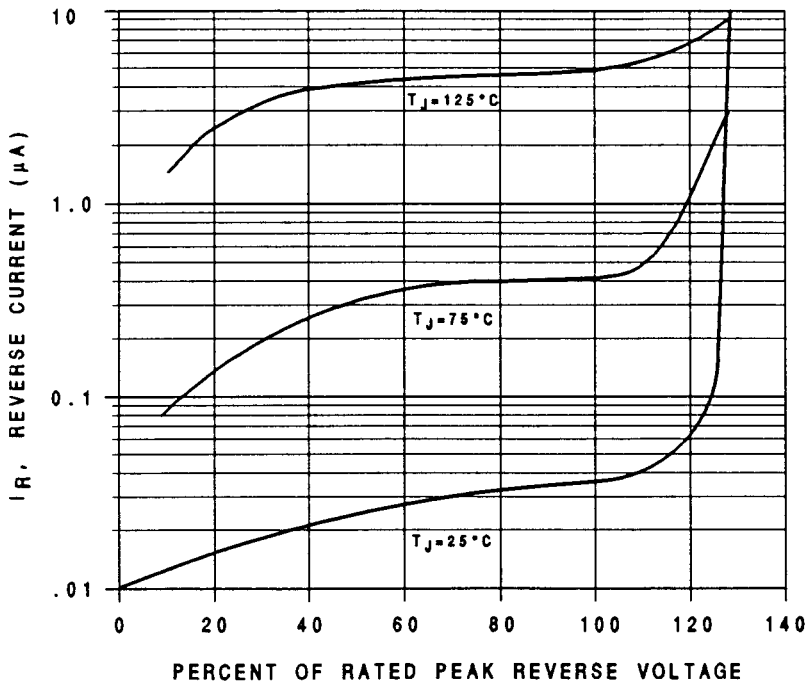
FORWARD CURRENT DERATING CURVE



TYPICAL FORWARD CHARACTERISTICS



TYPICAL REVERSE CHARACTERISTICS



MAXIMUM NON-REPETITIVE REVERSE AVALANCHE POWER DISSIPATION

